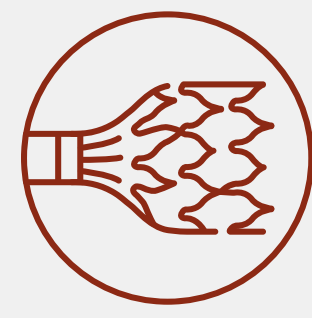


155 µm thin struts



4F low profile



Simple stent  
deployment

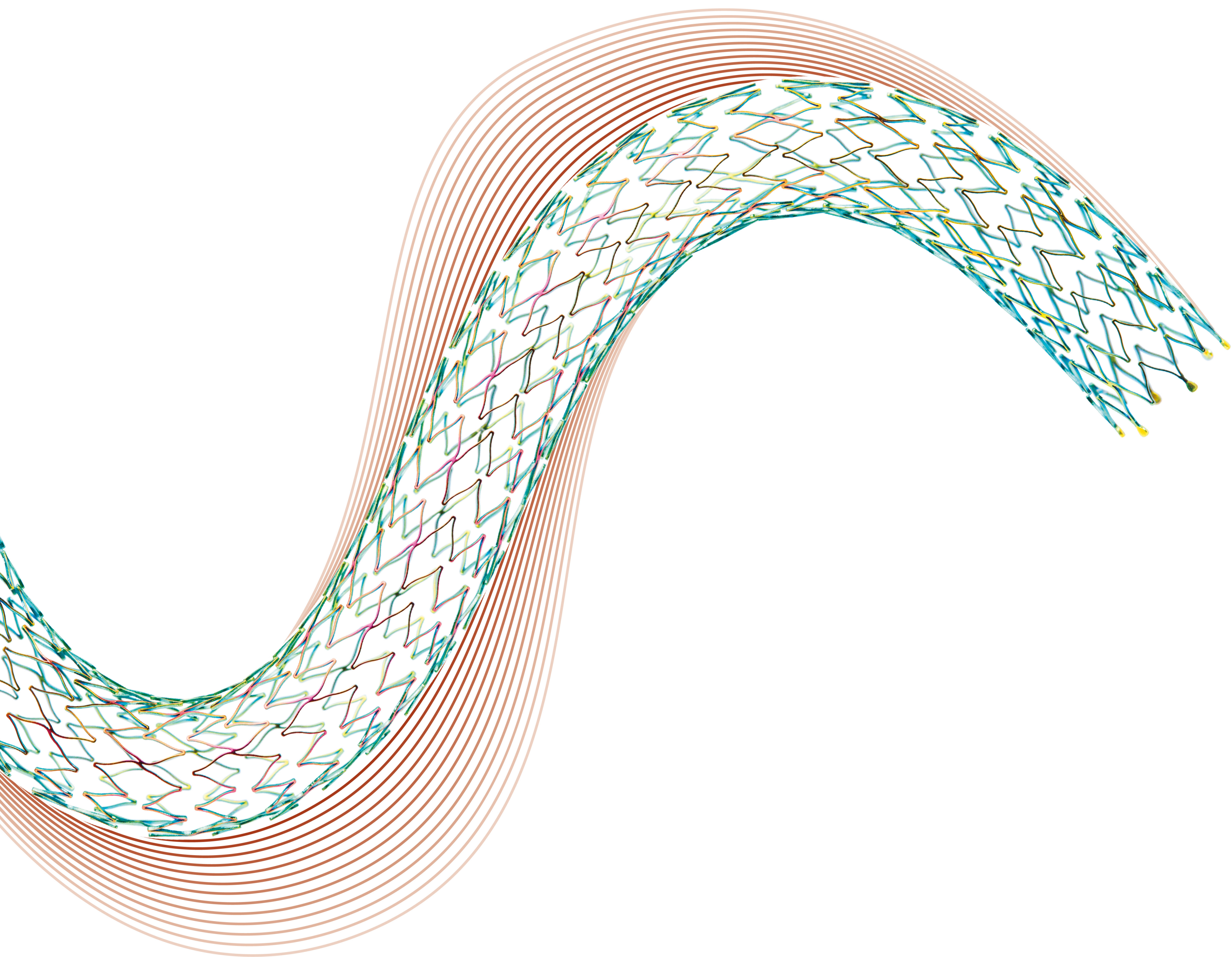


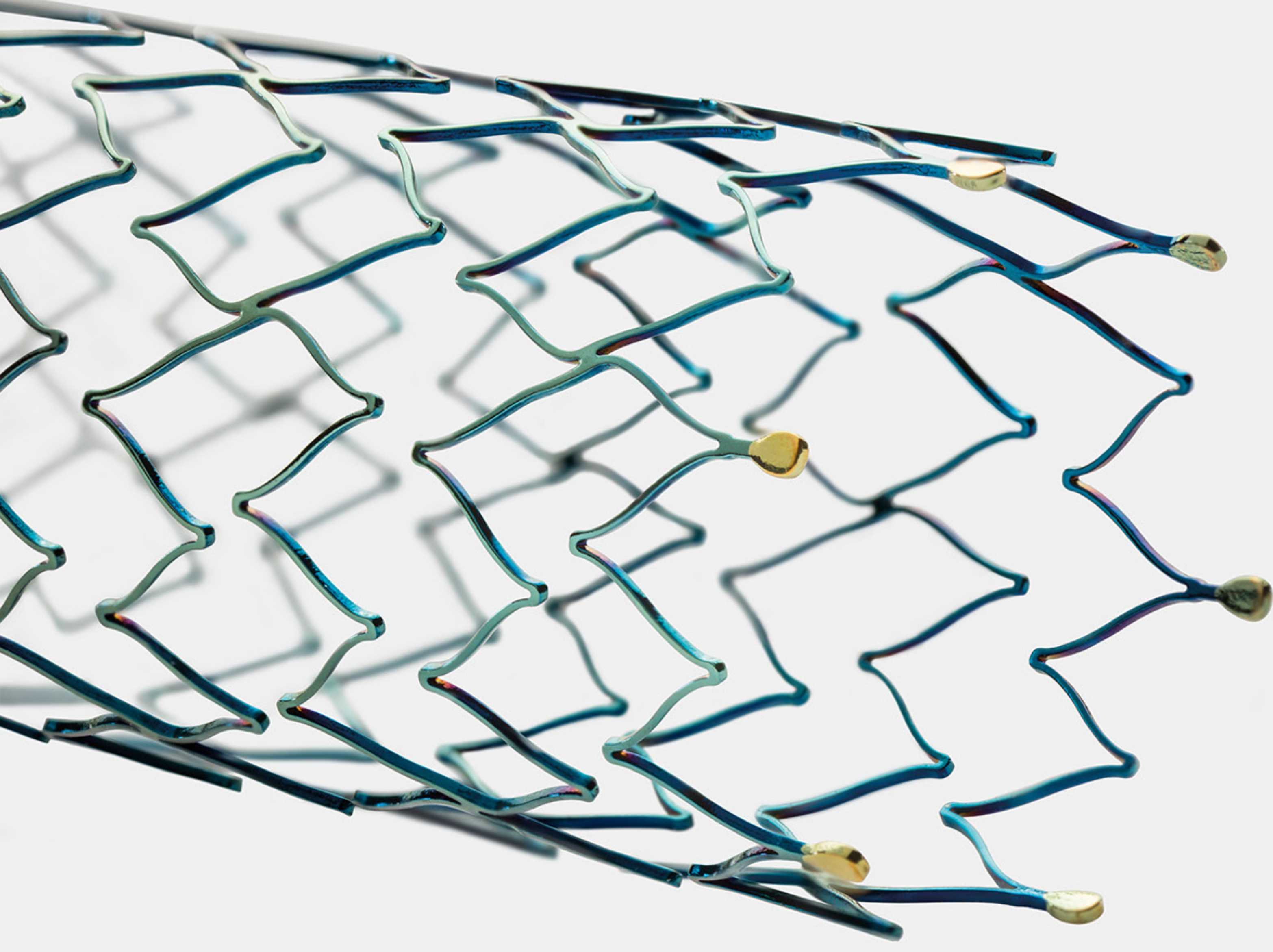
Technical data /  
ordering info

Vascular Intervention // **Peripheral**  
Self-Expanding Stent System/0.018"/OTW

 **BIOTRONIK**  
excellence for life

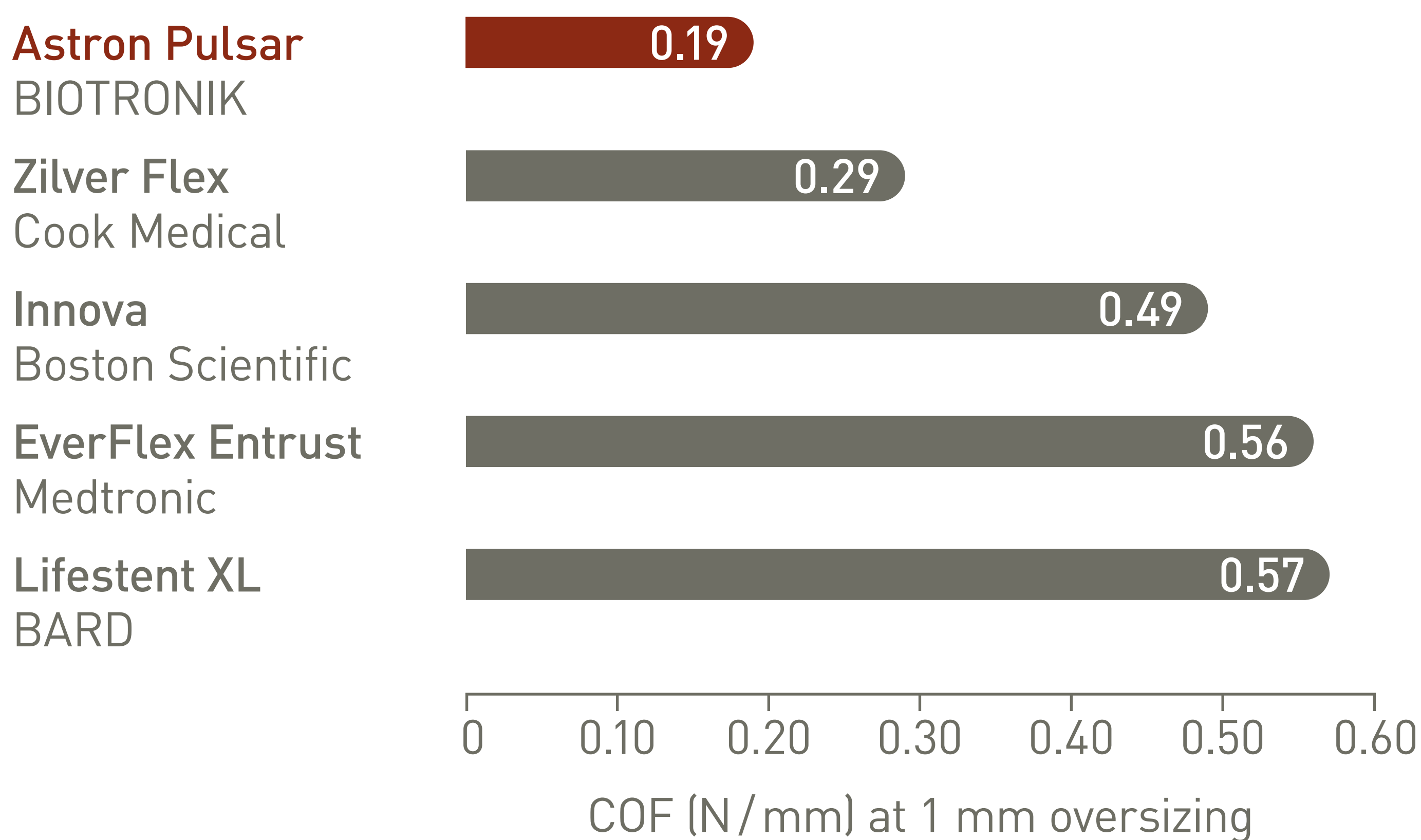
# Astron Pulsar





# 155 $\mu\text{m}$ thin struts - thinner than the leading brands<sup>1</sup>

Thinner struts for low Chronic Outward Force (COF)<sup>2</sup>

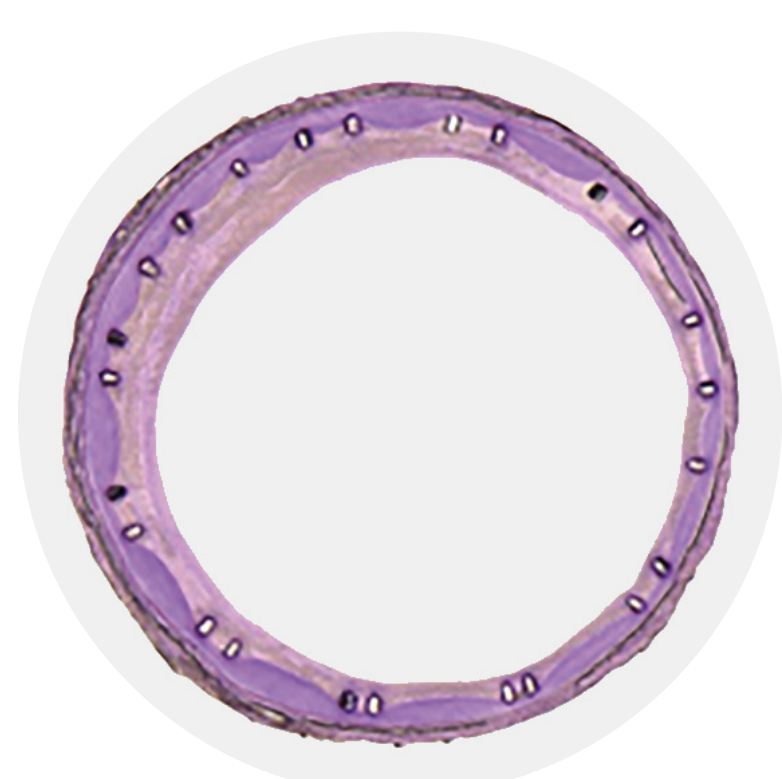


## Thinner struts and lower COF make a difference:\*

- Lower risk of restenosis<sup>3</sup>
- Reduced vessel injury and inflammation<sup>4</sup>
- Faster endothelialization<sup>5</sup>

\*As demonstrated in pre-clinical studies

1 mm stent oversizing at 90 days<sup>6</sup>



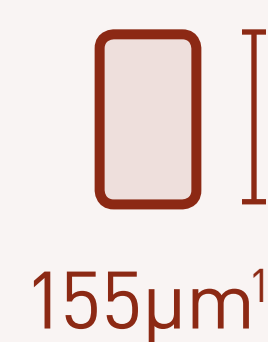
**Pulsar Stent**  
BIOTRONIK  
Low COF



**Lifestent XL**  
BARD  
High COF

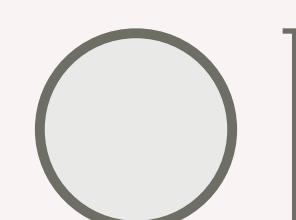
Stent strut thickness in perspective<sup>1</sup>

**Astron Pulsar**  
BIOTRONIK



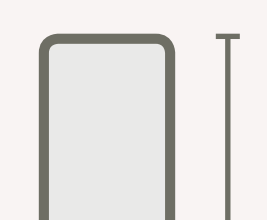
155 $\mu\text{m}$ <sup>1</sup>

**Supera**  
Abbott



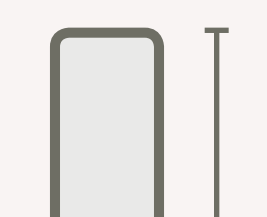
178 $\mu\text{m}$

**Zilver Flex**  
Cook Medical



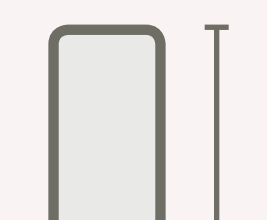
192 $\mu\text{m}$

**Lifestent XL**  
Bard



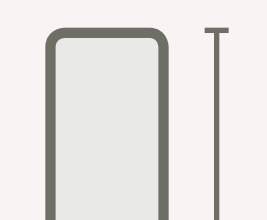
192 $\mu\text{m}$

**Innova**  
Boston Scientific



213 $\mu\text{m}$

**EverFlex Entrust**  
Medtronic



228 $\mu\text{m}$

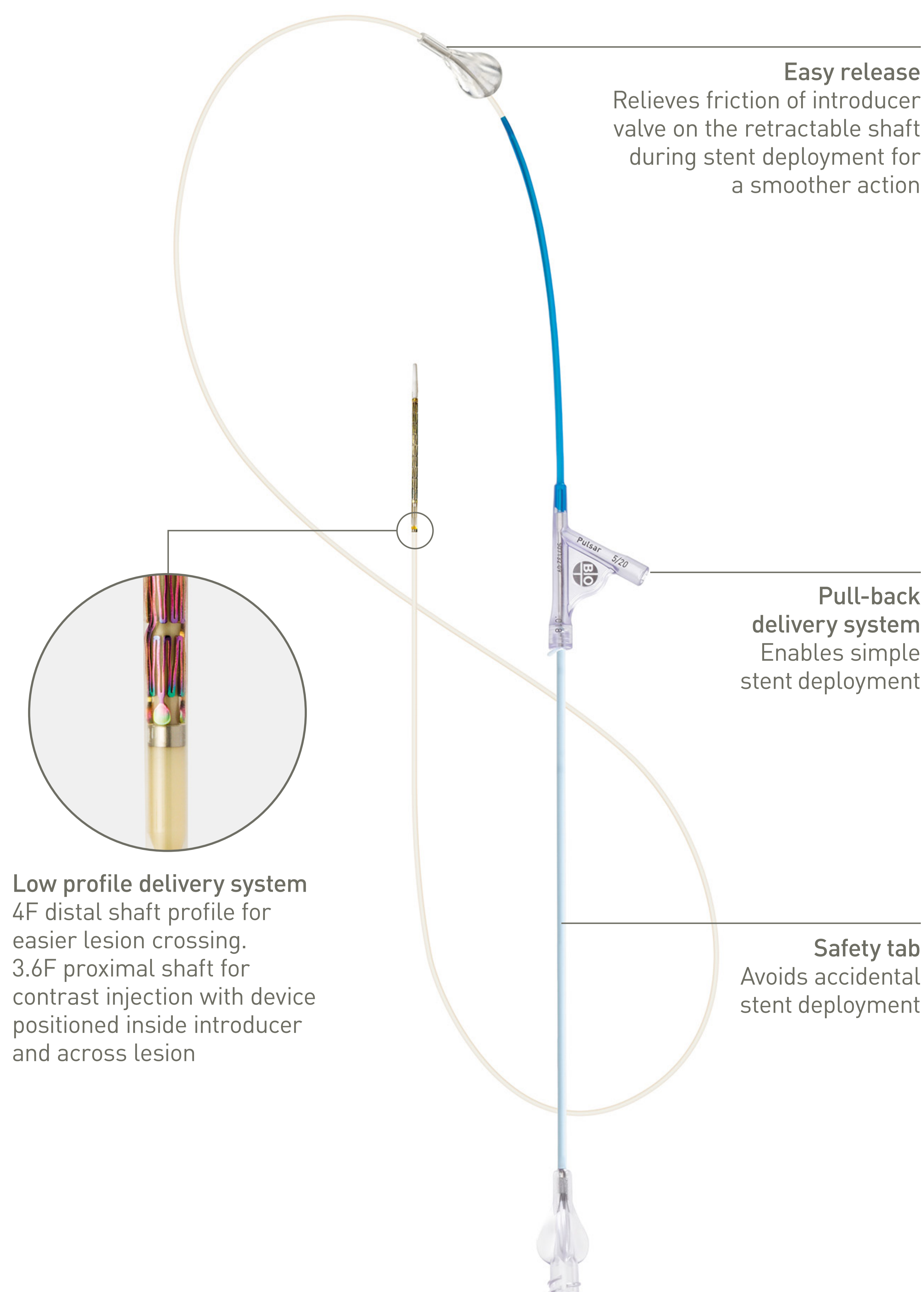
**45%**  
smaller  
puncture site  
area than 6F<sup>9</sup>

## 4F Low Profile - Improved acute outcomes vs. 6F<sup>7</sup>

### Potential for safer, faster and simpler procedures than 6F

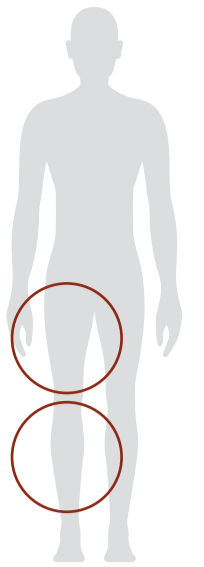
- Clinically proven lower access site complication rates<sup>7</sup>
- Shorter compression time<sup>8</sup>
- 45% smaller puncture site area than 6F<sup>9</sup>
- No need for a closure device

## Simple stent deployment



# Astron Pulsar

Vascular  
Intervention  
Peripheral



Indicated for use in patients with atherosclerotic disease of the femoral and infrapopliteal arteries and for the treatment of insufficient results after percutaneous transluminal angioplasty (PTA).\*

Technical Data	Stent
Catheter type	OTW
Recommended guide wire	0.018"
Stent material	Nitinol
Strut thickness	155 µm
Stent coating	proBIO (Amorphous Silicon Carbide)
Stent markers	6 gold markers each end
Sizes	ø 4 - 7 mm; L: 20 - 80 mm
Proximal shaft	3.6F, hydrophobic coating
Usable length	70 cm (ø 5.0 - 7.0 mm) 72 cm (ø 4.0 mm, L: 60 - 80 mm) 75 cm (ø 4.0 mm, L: 20 - 40 mm) 120 cm (ø 5.0 - 7.0 mm) 130 cm (ø 4.0 mm, L: 60 - 80 mm) 135 cm (ø 4.0 mm, L: 20 - 40 mm)

Ordering Information	Stent ø (mm)	Catheter length 70 - 75 cm Stent length (mm)				
		20	30	40	60	80
4F	4.0	358939	358940	358941	359347	359680
	5.0	349267	349268	349269	349270	358942
	6.0	349275	349276	349277	349278	358943
	7.0	-	349283	349284	349285	349286
	Stent ø (mm)	Catheter length 120 - 135 cm Stent length (mm)				
		20	30	40	60	80
4F	4.0	358944	358945	358946	359346	359681
	5.0	349271	349272	349273	349274	358947
	6.0	349279	349280	349281	349282	358948
	7.0	-	349287	349288	349289	349290

1. 6.0 mm diameters; BIOTRONIK data on file; 2. 6.0 mm diameters. Supera stent not possible to test due to its design and applied test method. BIOTRONIK data on file; 3, 4. As demonstrated in pre-clinical studies: Zhao HQ, Nikanorov A, Virmani R, Jones R, Schwartz LB. Late stent expansion and neointimal proliferation of oversized nitinol stents in peripheral arteries. Cardiovasc. Intervent. Radiol. 2009 Jul; 32(4): 720-6; 5. As demonstrated in pre-clinical studies: Konstantinos C. Role of endothelial shear stress in stent restenosis and thrombosis. JACC 2012.; Koppa et al. Circ Cardiovasc Interv 2015; 8: e002427.; EuroIntervention. BIOTRONIK data on file. 2010 Nov;6(5):630-7; Soucy N, Feygin J et al.; 6. Funovic M. Presented at LINC 2017; 7, 8. Bosiers M, et al. 4-French-compatible endovascular material is safe & effective in the treatment of femoropopliteal occlusive disease: Results of the 4EVER Trial. J ENDOVASC THER. 2013; 20: 746-756; 9. BIOTRONIK data on file.

Leading competitors have been selected based on the PV Stent Revenue Market Shares EU, 2017 and PV Revenue Market Shares APAC 2015; (Source: Millennium Research Group Inc.). Latest SFA self expanding stents for each manufacturer; Supera is a registered trademark of the Abbott Group of Companies; Lifestent is a registered trademark of C.R. Bard; Zilver is a registered trademark of Cook Medical; EverFlex and Entrust are registered trademarks of the Medtronic Group of Companies; Innova is a registered trademark of Boston Scientific.

\*Indication as per IFU.